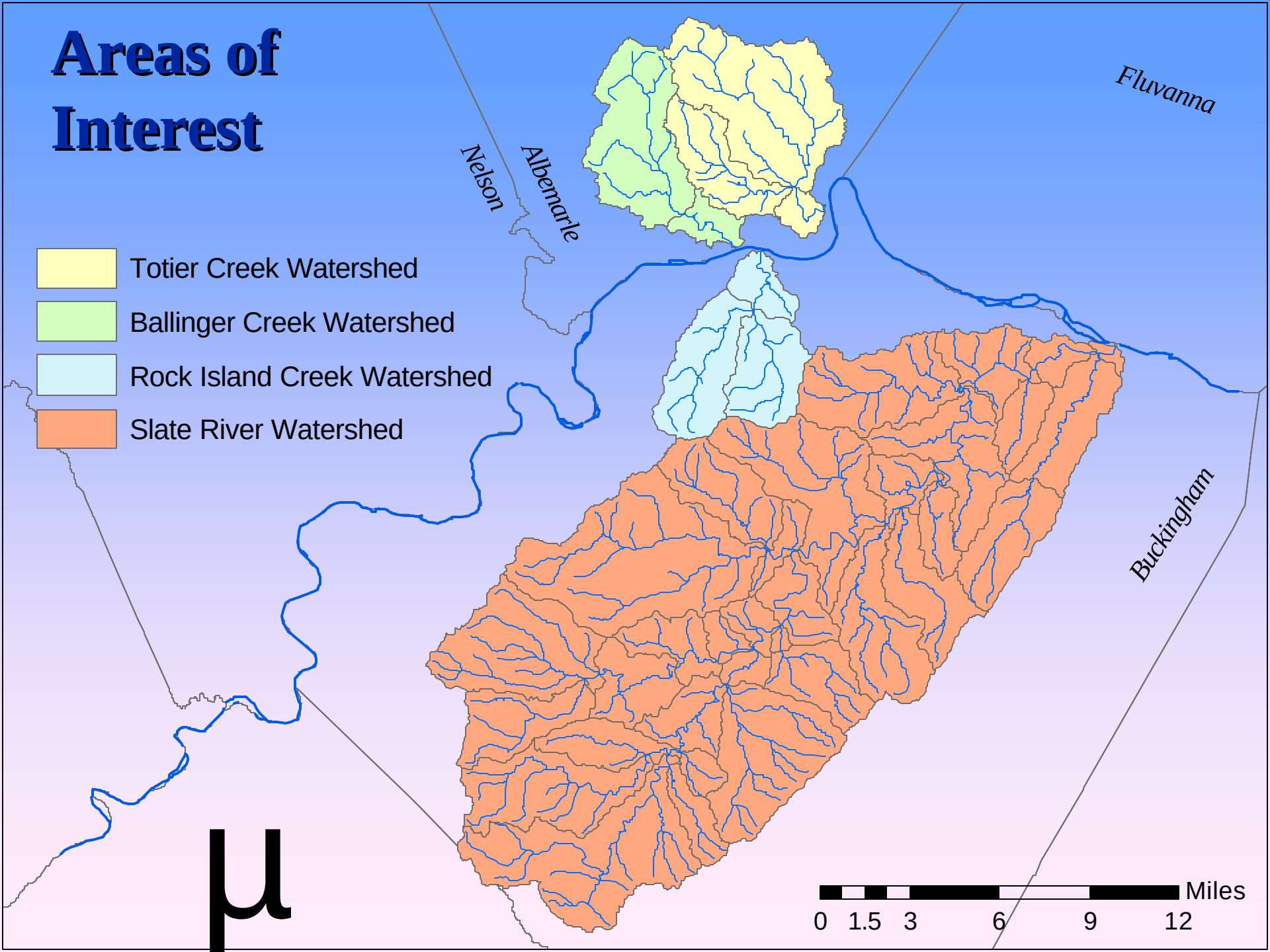
Public Meeting on James River Tributaries in Albemarle and Buckingham Counties

August 10, 2006

Why Are We Here?

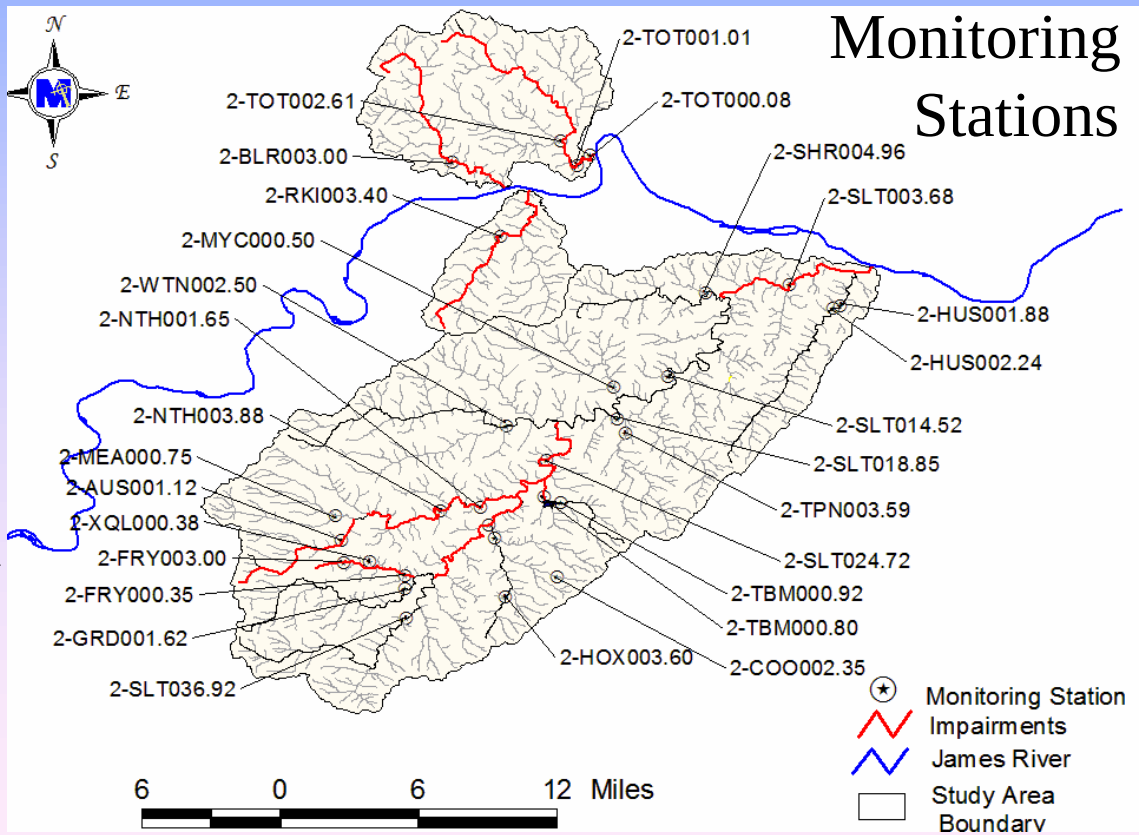
- Learn about water quality in several James River tributaries
- Explain efforts that the State is undertaking to improve and protect water quality
- Learn what you can do to help

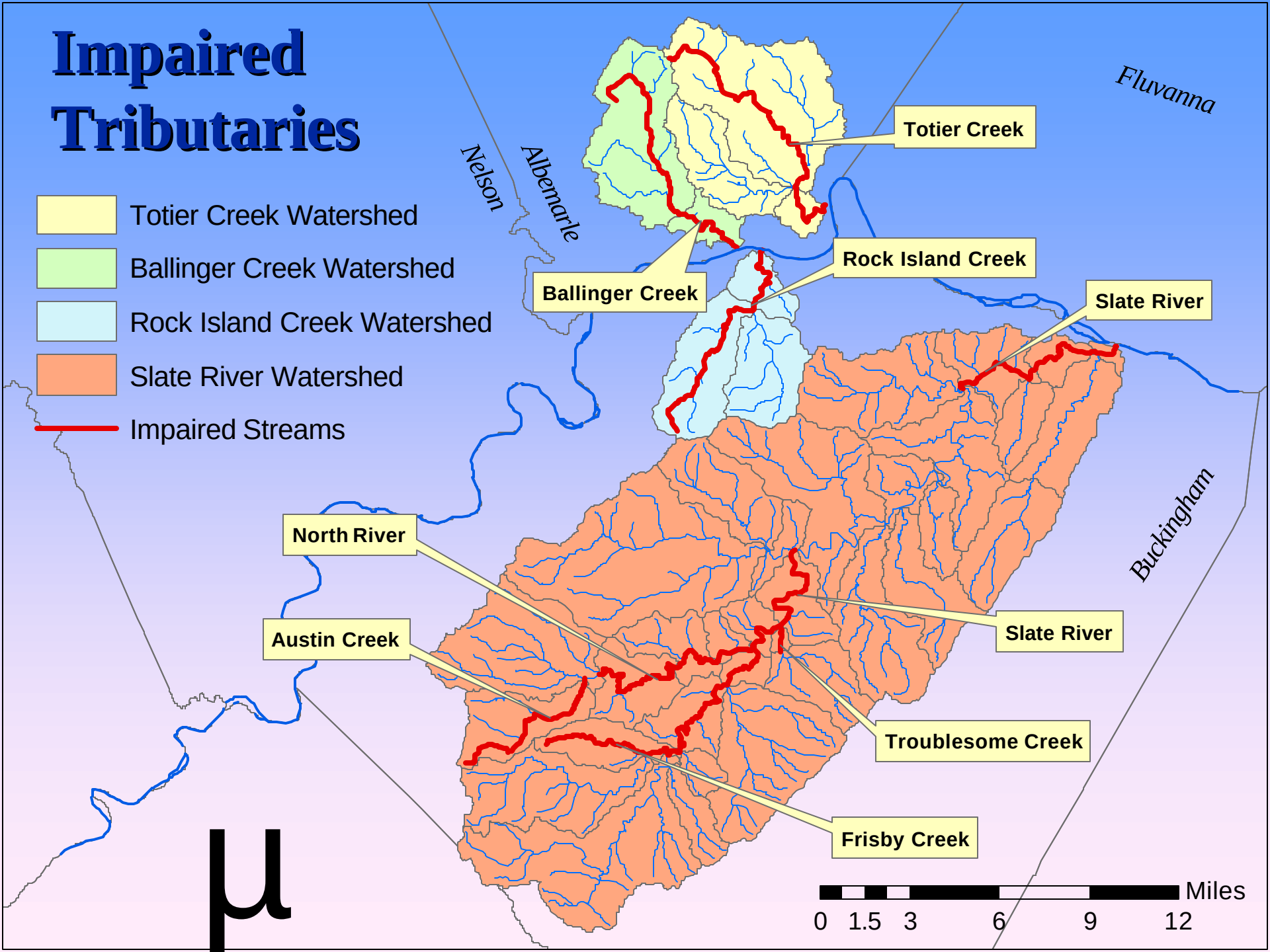

Areas of Interest
Totier Creek Watershed
Ballinger Creek Watershed
Rock Island Creek Watershed
Slate River Watershed
Nelson
Albemarle
Fluvanna
Buckingham
μ
Miles
0 1.5 3 6 9 12

What's the Status of these Tributaries?

- DEQ routinely monitors the quality of waters across the state and reports those results every 2 years

- In the last report (2006), several James River tributaries in Albemarle and Buckingham Counties were listed as "impaired" by excess bacteria




Impaired Tributaries
Totier Creek Watershed
Ballinger Creek Watershed
Rock Island Creek Watershed
Slate River Watershed
Impaired Streams
Nelson
Albemarle
Fluvanna
Buckingham
Totier Creek
Ballinger Creek
Rock Island Creek
Slate River
North River
Austin Creek
Slate River
Troublesome Creek
Frisby Creek
μ
Miles
0 1.5 3 6 9 12

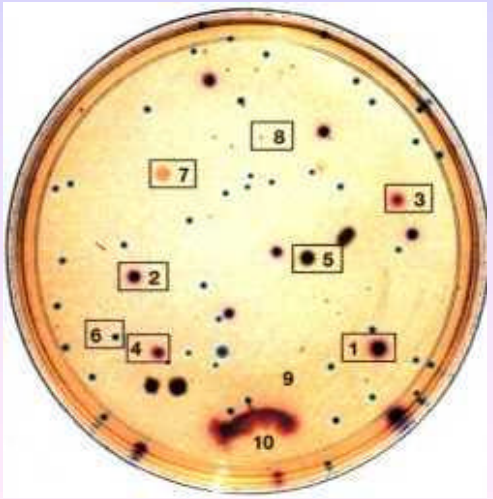
Bacterial Impairment

What does impaired mean?

- More than 10% of samples collected exceeded State standards for bacteria

What is the standard?

- No more than 400 fecal coliforms per 100ml water (~1/2 cup)
- Fecal coliforms are indicators of human or animal waste



Why Are High Fecal Coliform Levels Bad?

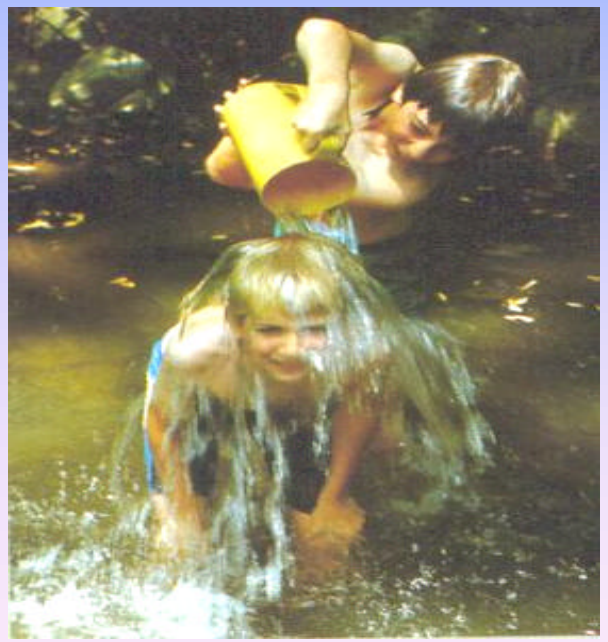
- Presence of fecal coliforms indicate that other disease causing bacteria may be present

Human Health Concern

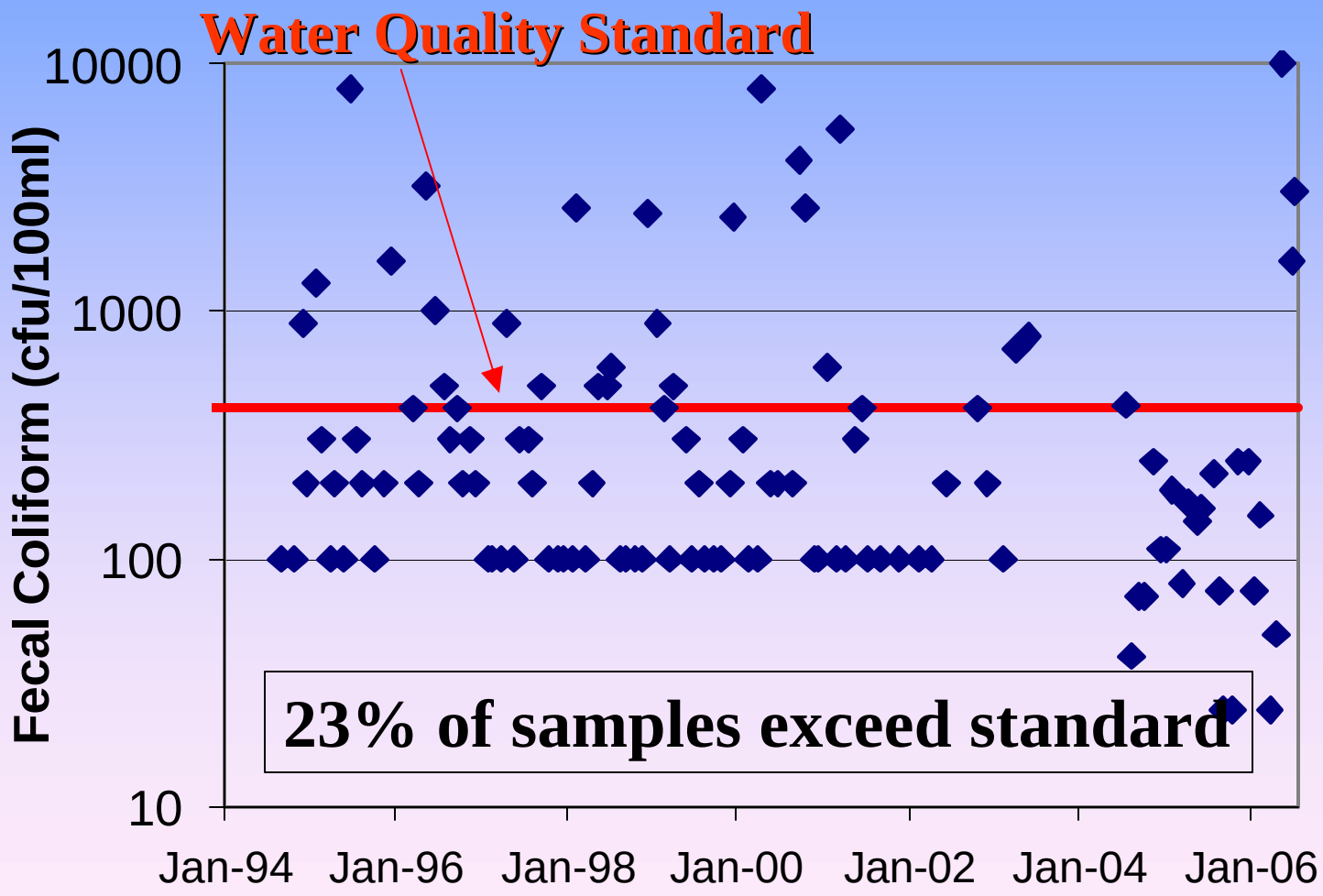
- Chance of gastrointestinal illness or infection during primary contact (e.g., water in mouth, nose, eyes, open wounds)

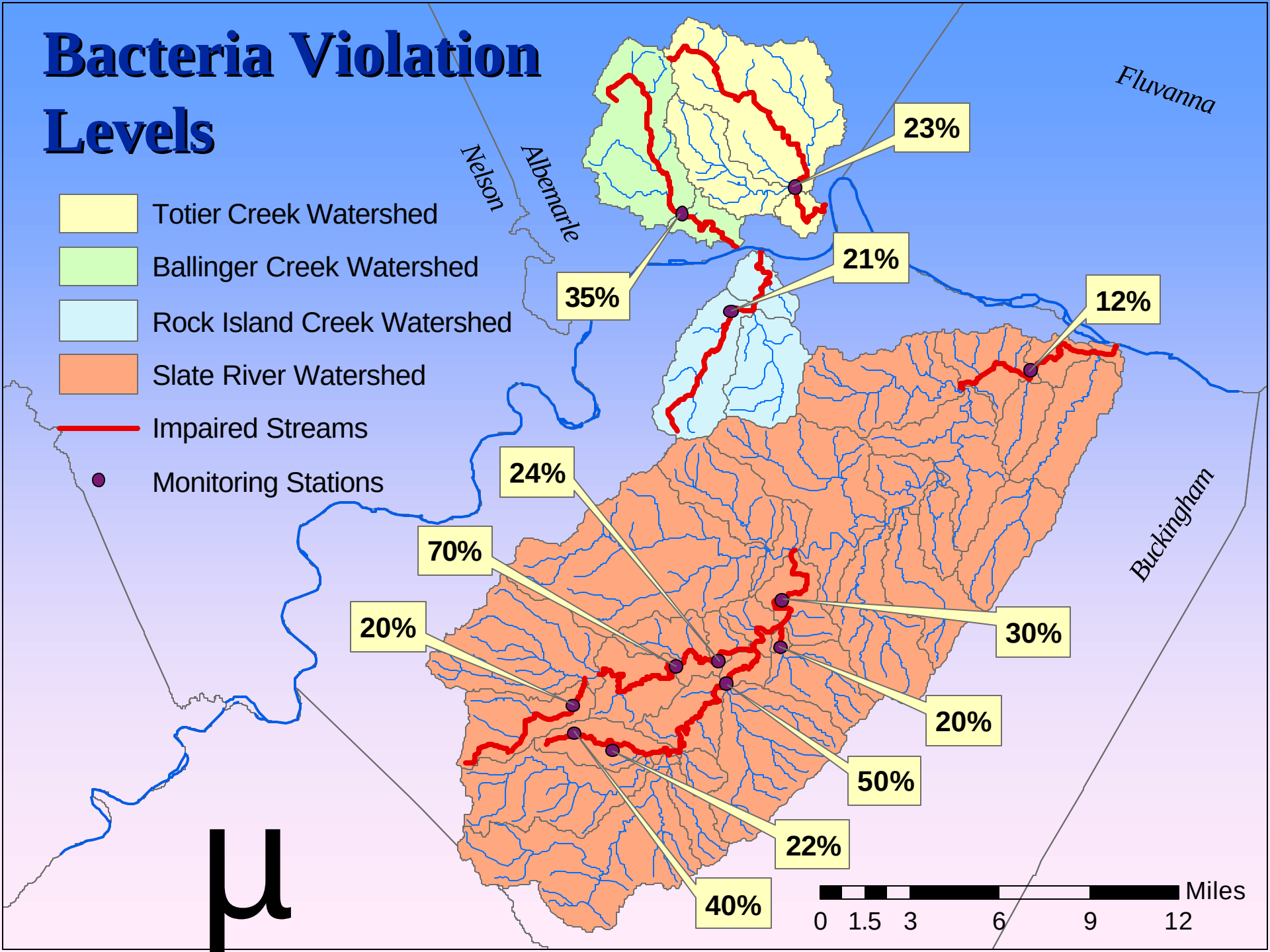
Other Concerns

- Livestock health and weight gain



What Are Bacteria Levels in Totier Creek?




Bacteria Violation Levels
Totier Creek Watershed
Ballinger Creek Watershed
Rock Island Creek Watershed
Slate River Watershed
Impaired Streams
Monitoring Stations
Nelson
Albemarle
Fluvanna
Buckingham
23%
35%
21%
12%
24%
70%
20%
30%
20%
50%
22%
40%
μ
Miles
0 1.5 3 6 9 12

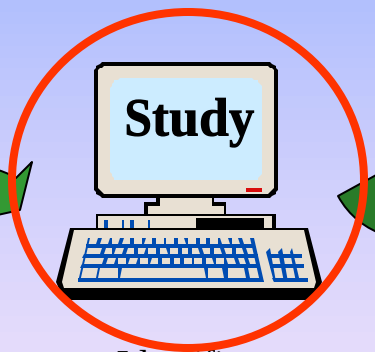
What Happens When a Stream is Impaired?

- The State begins a formal process to clean up that water body (a TMDL)

Total
Maximum
Daily
Load

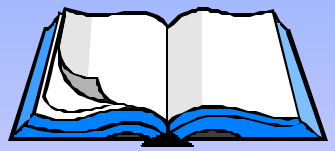
We are here

Study



- Identifies sources of pollution
- Calculates amounts from each source
- Estimates necessary pollutant reductions

Implementation Plan

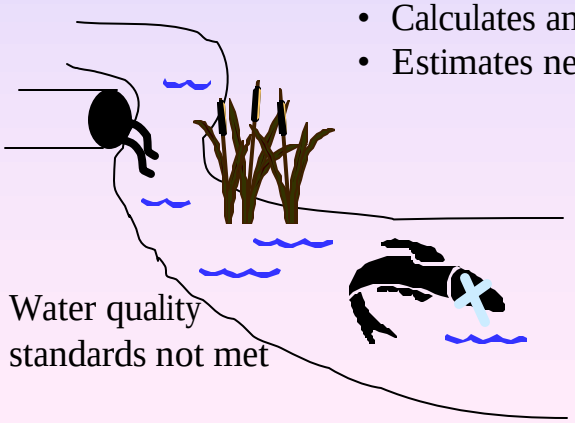


- Identifies permit controls or best management practices needed to make necessary pollutant reductions

Implementation

Monitoring

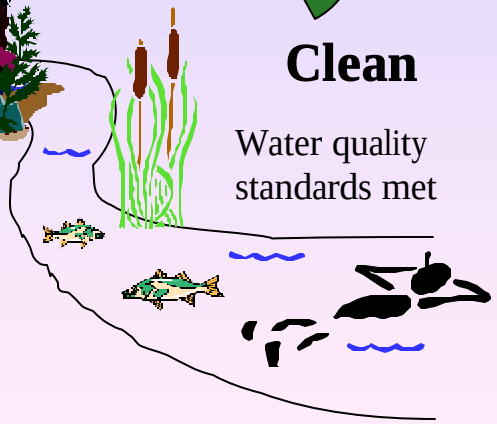
Polluted



Water quality standards not met

Clean

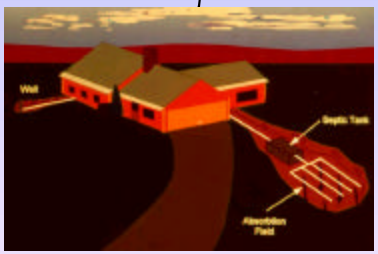
Water quality standards met



The Process

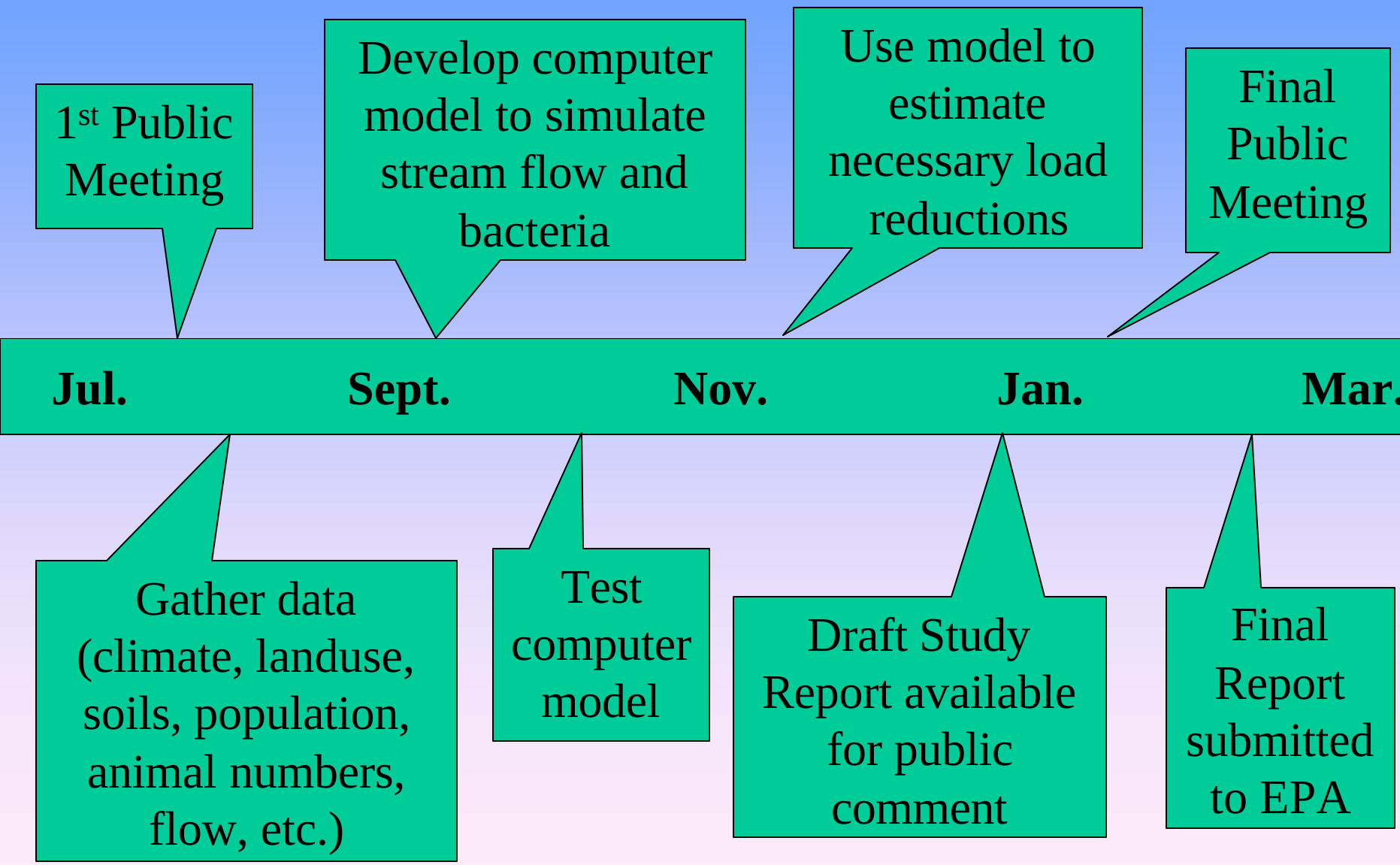
What are the Study Goals?

- Identify all sources of fecal bacteria
- Quantify amounts from each source
- Estimate reductions necessary to meet water quality standards



DEQ

What is the Study Timeline?



What Can You Do to Help?

- Participate on a Local Steering Committee
  - Group of local citizens, landowners, organizations, and government entities that will provide input, review and assistance to DEQ during the study
  - Goal - make sure technical aspects of the study are accurate as well as acceptable to the community

Sign up tonight

What Else Can You Do to Help?

- Begin implementing best management practices (BMPs) that improve water quality

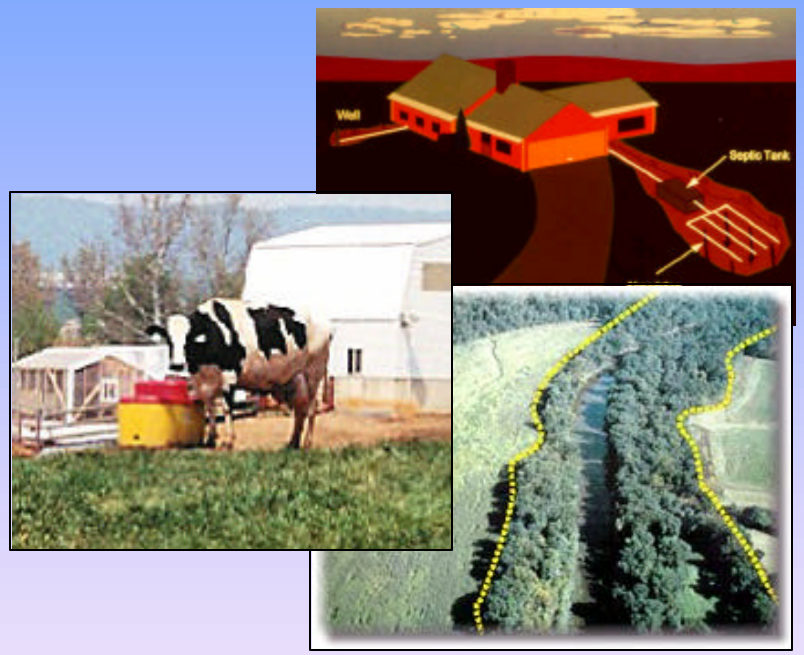
Urban Areas

- riparian buffers
- use fertilizers and pesticides sparingly
- never pour hazardous materials in storm drains
- disconnect roof drains from sanitary or storm sewers
- pick up pet wastes

What Else Can You Do to Help?

Rural/Agricultural Areas

- riparian buffers
- septic pump-outs/repairs
- stream exclusion fencing
- alternative water systems
- rotational grazing
- nutrient management



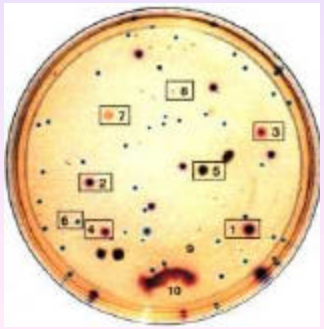
- Contact local S&WCD about programs and funding for BMPs

Albemarle: (434) 975-0224
Buckingham: (434) 983-4757

DEQ

Recap

- Bacterial impairments in several James River tributaries including:
  - Totier Creek, Ballinger Creek, Rock Island Creek, Slate River, Austin Creek, Frisby Branch, Troublesome Creek, North River
- DEQ is beginning a Water Quality Study to investigate these impairments
- Your help is needed on a local steering committee
- Study will be followed up by implementing voluntary improvements in the watershed with assistance from State and Federal funds



Questions?

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- Comment period for this public meeting ends Sept. 11, 2006